

Accidental Release Information Program (ARIP) Fact Sheet

BACKGROUND

The Chemical Emergency Preparedness and Prevention Office (CEPPO) within the Office of Solid Waste and Emergency Response (OSWER) leads the Environmental Protection Agency's (EPA) effort to prepare for and prevent chemical accidents. The Agency began its chemical accident prevention program in 1986. To identify the steps that could be taken by industrial facilities to prevent releases, the Agency needed information on the causes of accidents and industry prevention practices. At that time, the only data available focused on the quantities released rather than causes.

To develop new information on accident causes, EPA initiated the Accidental Release Information Program (ARIP). The program involves collecting questionnaire information from facilities that have had significant releases of hazardous substances, developing a national accidental release database, analyzing the collected information, and disseminating the results of the analysis to those involved in chemical accident prevention activities. ARIP also helps to focus industry's attention on the causes of accidental releases and the means to prevent them.

ELEMENTS OF ARIP

Authority

EPA is authorized to collect information on accidental releases under: section 3007(a) of the Resource Conservation and Recovery Act (RCRA); section 104(b)(1) and (e) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA); section 308(a) of the Clean Water Act; and section 114 of the amended Clean Air Act. These statutes require that the information be furnished either to develop regulations, conduct enforcement, or determine the need to respond to or prevent accidental chemical releases.

Selection of Facilities to Survey

U.S. facilities are required by law to report non-routine releases of certain substances when those releases exceed a reportable quantity (RQ). These reports are called into the National Response Center, the U.S. Coast Guard, and EPA regional offices. EPA compiles the reports into the Emergency Response Notification System (ERNS) database. EPA then uses ERNS data to select releases for the ARIP questionnaire.

The ERNS database includes a wide range of releases from both fixed facilities and transportation. Since the Department of Transportation is responsible for transportation accidents and OSHA is responsible for accidents affecting workers, ARIP targets those accidental releases at fixed facilities that resulted in off-site consequence or environmental damage. Off-site consequence includes any casualty, evacuation, shelter-in-place, or any other necessary precaution taken by individuals off-site as a result of the release. Environmental damage includes wildlife kills, significant vegetation damage, soil contamination, and ground and surface water contamination. Not all non-routine releases reported in ERNS result from accidents. To focus on significant accidents, an ARIP questionnaire is sent to all releases that resulted in death or injury. If the release also resulted in off-site consequence or environmental damage, then the facility is required to complete the questionnaire.

ARIP Questionnaires

The ARIP questionnaire consists of 23 questions about the facility, the circumstances and causes of the incident, and the accidental release prevention practices and technologies in place prior to, and added or changed as a result of, the event. The questionnaire focuses on several areas of accident prevention including hazard assessments, training, emergency response, public notification procedures, mitigation techniques, and prevention equipment and controls.

The EPA regions send each selected facility a package that contains a cover letter explaining the ARIP program, the criteria for completing the questionnaire, and directions for completing the ARIP questionnaire. Part A of the questionnaire contains the available EPA information about the event from the ERNS database. Part B of the questionnaire contains questions concerning the facility, substance released, and prevention practices. The facility is asked to verify and correct the ERNS information in Part A, to complete Part B of the questionnaire, and to return both parts to the regional office. The regional office then forwards a copy of the completed questionnaire to EPA headquarters. Verified ERNS information is used to validate the ERNS database for these events.

ARIP Database

When EPA headquarters receives the questionnaire, the responses are entered into a database. EPA also files copies of the questionnaire for future reference.

USES OF ARIP DATA

The ARIP information has been collected into a national database that provides data on the causes of accidental releases and the ways to prevent them from recurring. EPA has used the database to define areas where further information is needed, to disseminate information about accident causes, and to help develop program and regulatory initiatives. ARIP data help to focus attention on accidents and prevention methods and technologies.

Analysis of ARIP information and the resulting insights into the nature of chemical accidents are published in EPA reports that are shared with interested individuals and organizations. In June 1989, EPA published a chemical accident prevention bulletin entitled, "Why Accidents Occur: Insights from the Accidental Release Information Program," which summarized the results and lessons learned from initial analyses of the ARIP data. This publication was targeted to State Emergency Response Commissions (SERCs) and Local Emergency Planning Committees (LEPCs) and was designed to enhance their understanding of accident causes and steps used to prevent accidents.

ARIP also builds understanding of accident prevention issues in EPA regions and verifies the information in the ERNS database for use in other EPA efforts. For example, EPA regions use ARIP data as background material to assist in Chemical Safety Audits and investigations.

In addition, ARIP provides a means of focusing the attention of industry management on chemical accident prevention. Through trade groups and associations, facility managers can be informed about ARIP findings on common types of releases and ways to prevent them. Further, when provided with ARIP information, SERCs and LEPCs become more knowledgeable about chemical accident prevention and can more effectively communicate with facilities.

ARIP data have also been supplied to the Organisation for Economic Co-operation and Development to support international analysis of accidents. Currently, ARIP data and findings are being used by EPA in support of the development of the regulations for chemical accident prevention as mandated by section 112(r) of the amended Clean Air Act.

DEVELOPMENT AND STATUS OF ARIP

EPA conducted a pilot test of the ARIP survey in early 1987 and instituted the program nation-wide later that year. The facility selection was based on casualty, quantity of material, type of chemical, and frequency of releases. During late fall of 1988, EPA refined and expanded the survey questions to emphasize prevention concepts, and the selection criteria were modified to target facilities better.

In January 1989, EPA prepared a draft interim report on the ARIP analysis. The report suggested that facility management should encourage further use of technologies and practices to prevent chemical accidents. For example, one of the report's findings indicated that inspection and preventive maintenance on equipment and instruments should become more widespread, especially on piping systems.

In July 1991, changes in the information collection effort were instituted to streamline the data-gathering process and verify accidental release information in the ERNS database. In July 1993, the basis for selecting facilities was changed from a quantity of material released to off-site impact and environmental damages to focus the survey more appropriately on significant accidents. The ARIP survey has been approved by the Office of Management and Budget through September 30, 1995.

For more information, contact the Emergency Planning and Community Right-to-Know Information Hotline at (800) 535-0202, Monday through Friday, 8:30 am to 7:30 pm, Eastern Time. Please note: This is NOT an emergency number.